

Section I (Amendment to the Claims)

Please add new claims 52-59, as in the following listing of claims 1-59:

1. (previously presented) A chemical mechanical polishing slurry being free of heteropolyacid, said slurry comprising an abrasive and an oxidizing agent selected from the group consisting of hydrogen peroxide, iodic acid, potassium iodate, ferric nitrate, ammonium chlorite, ammonium chlorate, ammonium iodate, ammonium perborate, ammonium perchlorate, ammonium periodate ammonium persulfate, tetramethylammonium chlorite, tetramethylammonium chlorate, tetramethylammonium iodate, tetramethylammonium perborate, tetramethylammonium perchlorate, tetramethylammonium periodate, tetramethylammonium persulfate, and urea, wherein said abrasive consists essentially of organic polymer.
2. (cancelled).
3. (previously presented) The chemical mechanical polishing slurry according to claim 1, wherein the abrasive consists essentially of poly (methyl methacrylate).
4. (previously presented) The chemical mechanical polishing slurry according to claim 1, wherein the abrasive consists essentially of colloidal poly (methyl methacrylate).
5. (previously presented) The chemical mechanical polishing slurry according to claim 1, wherein said abrasive is present in said slurry in a weight percent ranging from about 1 to 10.
6. (previously presented) The chemical mechanical polishing slurry according to claim 1, wherein said abrasive is present in said slurry in a concentration ranging from about 3 to 8 weight percent.
7. (previously presented) The chemical mechanical polishing slurry according to claim 1, wherein said abrasive is present in said slurry in a concentration of about 5 weight percent.

8. (original) The chemical-mechanical polishing slurry according to claim 1, wherein said abrasive has a particle size distribution in a range of from about 10 to 75 nm.
9. (original) The chemical-mechanical polishing slurry according to claim 1, wherein said abrasive has a particle size distribution in a range of from about 20 to 60 nm.
10. (original) The chemical-mechanical polishing slurry according to claim 1, wherein said abrasive has a particle size distribution in a range of from about 29 to 55 nm.
11. (original) The chemical mechanical polishing slurry according to claim 1, further comprising an oxidizing agent and an activating agent.
12. (previously presented) The chemical mechanical polishing slurry according to claim 1, wherein said slurry comprises from about 1 to 10 % by weight abrasive; from about 1 to 20 % by weight oxidizing agent and from about 0 to 5 % activating agent.
13. (original) The chemical mechanical polishing slurry according to claim 12 further comprising from about 0.1 to 2 percent surfactant.
14. (original) The chemical mechanical polishing slurry according to claim 13, wherein said surfactant is selected from the group consisting of non-ionic, cationic and anionic.
15. (original) The chemical mechanical polishing slurry according to claim 13, wherein said surfactant is anionic.
16. (original) The chemical mechanical polishing slurry according to claim 13, wherein said surfactant is water-soluble.
17. (original) The chemical mechanical polishing slurry according to claim 15, wherein said anionic surfactant is selected from the group consisting of carboxylates, alkyl sulfates and alkyl phosphates.

18. (original) The chemical mechanical polishing slurry according to claim 15, wherein said anionic surfactant is sodium laurel sulfate.
19. (original) The chemical mechanical polishing slurry according to claim 1, further comprising a pH modifier selected from the group consisting of: potassium hydroxide, sodium hydroxide, ammonium hydroxide and tetra methyl ammonium hydroxide wherein said pH modifier is present in an amount sufficient to modify the pH to a region of about 2 to 4.
20. (original) The chemical mechanical polishing slurry according to claim 11, wherein said oxidizing agent is selected from the group consisting of hydrogen peroxide, iodic acid, potassium iodate, and ammonium perborate.
21. (original) The chemical mechanical polishing slurry according to claim 11, wherein said oxidizing agent is hydrogen peroxide.
22. (canceled).
23. (original) The chemical mechanical polishing slurry according to claim 1, further comprising a passivating agent.
24. (original) The chemical mechanical polishing slurry according to claim 1, further comprising a complexing agent.
25. (original) The chemical mechanical polishing slurry according to claim 1, having a pH in a range of from about 0.1 to 6.9.
26. (original) The chemical mechanical polishing slurry according to claim 1, further comprising an oxidizing agent, an activating agent, a passivating agent and a complexing agent.
27. (previously presented) The chemical mechanical polishing slurry according to claim 1, wherein said slurry comprises from about 1 to 10 % by weight abrasive; from about 1 to

20 % by weight oxidizing agent; from about 0 to 5 % activating agent; from about 0.01 to 2 % and from about 0.01 to 3 percent complexing agent.

28. (original) The chemical mechanical polishing slurry according to claim 27, further comprising a pH modifier selected from the group consisting of potassium hydroxide, sodium hydroxide, ammonium hydroxide and tetra methyl ammonium hydroxide wherein such pH modifier is present in an amount sufficient to modify the pH to a region of about 2 to 4.
29. (original) The chemical mechanical polishing slurry according to claim 26, wherein said passivating agent is a carboxylic acid.
30. (original) The chemical mechanical polishing slurry according to claim 26, wherein the passivating agent is selected from the group consisting of glycine, oxalic acid, malonic acid, succinic acid and nitrilotriacetic acid.
31. (original) The chemical mechanical polishing slurry according to claim 26, wherein the passivating agent is a dicarboxylic acid.
32. (original) The chemical mechanical polishing slurry according to claim 31, wherein the dicarboxylic acid has a nitrogen containing functional group.
33. (original) The chemical mechanical polishing slurry according to claim 31, wherein the dicarboxylic acid is iminodiacetic acid.
34. (original) The chemical mechanical polishing slurry according to claim 26, wherein the passivating agent is iminodiacetic acid.
- 35-42. (cancelled).
43. (original) The chemical mechanical polishing slurry according to claim 26, wherein the activating agent is selected from the group consisting of inorganic and organic acids.

44. (original) The chemical mechanical polishing slurry according to claim 43, wherein the inorganic acid is selected from the group consisting of phosphoric acid and iodic acid.
45. (original) The chemical mechanical polishing slurry according to claim 43, wherein the organic acid is selected from the group consisting of citric acid and malonic acid.
46. (original) The chemical mechanical polishing slurry according to claim 26, wherein the complexing agent is selected from the group consisting of citric acid and malonic acid.
47. (original) The chemical mechanical polishing slurry according to claim 26, further comprising potassium hydroxide, sodium hydroxide or ammonium hydroxide in such amounts to modify the pH to a region of about 0.1 to 6.9.
48. (previously presented) A chemical mechanical polishing slurry being free of heteropolyacid and consisting essentially of about 5 percent abrasive, about 5 percent hydrogen peroxide, about 0.1 percent citric acid, about 0.2 percent iminodiacetic acid, about 0.013 percent ammonia, and about 90 percent water, wherein said abrasive consists essentially of poly (methyl methacrylate).
49. (original) The chemical mechanical polishing slurry according to claim 48 having a pH of about 2.5.
50. (cancelled).
51. (previously presented) A chemical mechanical polishing slurry composition consisting essentially of from about 0.1 to 50 percent abrasive, from about 0.1 to 25 percent oxidizing agent; from about 0 to 5 percent activating agent; from about 0 to 3 percent corrosion inhibitor and from about 0 to 3 percent cleaning agent, wherein said abrasive consists essentially of colloidal poly (methyl methacrylate), and wherein said composition is free of heteropolyacid.
52. (new) A chemical mechanical polishing slurry being free of heteropolyacid, said slurry comprising an abrasive that consists essentially of organic polymer.

53. (new) The chemical mechanical polishing slurry of claim 52, further comprising an oxidizing agent.
54. (new) A method for chemical mechanical polishing copper, barrier material and dielectric material, from a semiconductor wafer substrate, said method comprising the steps of:
- a) providing a first chemical mechanical polishing slurry as in claim 1;
 - b) chemical mechanical polishing the semiconductor wafer substrate surface with said first chemical mechanical polishing slurry;
 - c) providing a second chemical mechanical polishing slurry, wherein said second slurry has a higher removal rate on said barrier material than said copper material; and
 - d) chemical mechanical polishing said semiconductor wafer substrate surface with said second slurry.
55. (new) A method for chemical mechanical polishing copper, barrier material and dielectric material from a semiconductor wafer substrate, said method comprising the steps of providing a chemical mechanical polishing slurry as in claim 1, and chemical mechanical polishing the semiconductor wafer substrate surface with said chemical mechanical polishing slurry.
56. (new) A method for chemical mechanical polishing copper, barrier material and dielectric material, from a semiconductor wafer substrate, said method comprising the steps of:
- a) providing a first chemical mechanical polishing slurry as in claim 51;
 - b) chemical mechanical polishing the semiconductor wafer substrate surface with said first chemical mechanical polishing slurry;
 - c) providing a second chemical mechanical polishing slurry, wherein said second slurry has a higher removal rate on said barrier material than said copper material; and
 - d) chemical mechanical polishing said semiconductor wafer substrate surface with said second slurry.

57. (new) A method for chemical mechanical polishing copper, barrier material and dielectric material, from a semiconductor wafer substrate, said method comprising the steps of providing a chemical mechanical polishing slurry as in claim 51, and chemical mechanical polishing the semiconductor wafer substrate surface with said chemical mechanical polishing slurry.
58. (new) A method for chemical mechanical polishing copper, barrier material and dielectric material, from a semiconductor wafer substrate, said method comprising the steps of:
- a) providing a first chemical mechanical polishing slurry as in claim 52;
 - b) chemical mechanical polishing the semiconductor wafer substrate surface with said first chemical mechanical polishing slurry;
 - c) providing a second chemical mechanical polishing slurry, wherein said second slurry has a higher removal rate on said barrier material than said copper material; and
 - d) chemical mechanical polishing said semiconductor wafer substrate surface with said second slurry.
59. (new) A method for chemical mechanical polishing copper, barrier material and dielectric material, from a semiconductor wafer substrate, said method comprising the steps of providing a chemical mechanical polishing slurry as in claim 52, and chemical mechanical polishing the semiconductor wafer substrate surface with said chemical mechanical polishing slurry.

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